

all species peculiar to New Zealand, but familiar genera such as *Scirpus*, *Festuca*, *Calamagrostis*, and *Euphorbia* are conspicuous. The "sandgrass" dunes and the shrub dunes represent the chief dune plant associations, the almost entire absence of forests being noticeable. A bibliography of the literature relating to the New Zealand dunes completes the interesting report.—GEO. D. FULLER.

Isolated ovulate plants of *Mercurialis*.—In a recent paper on the determination of sex²³ STRASBURGER described the behavior of isolated ovulate plants of *Mercurialis annua*. The subsequent behavior of these plants is now described.²⁴ They remained sterile for months, then formed staminate flowers and began to fruit. The pollen of staminate flowers is shed immediately when the anthers dehisce, and the flower drops off the next day, so that they might easily escape observation. Isolated sterile ovulate plants, when pollinated with the pollen of staminate individuals, produce staminate and ovulate plants in about equal numbers; but when pollinated with pollen from the scattered staminate flowers of ovulate plants, the resulting plants are almost exclusively ovulate. When ovulate plants have been pollinated with pollen from a staminate individual and have fruited, they begin to produce scattered staminate flowers. The haploid number of chromosomes, as counted in the pollen mother cells, is 7, and the diploid, both in young embryos and older plants, is 14. There are no adventitious embryos. Both in the observations and in the discussion of the results, this paper adds to STRASBURGER's already important contributions to the problem of the determination of sex.—CHARLES J. CHAMBERLAIN.

Coastal deserts of Jamaica.—Studying the south coast of Jamaica, SHREVE²⁵ has explained the desert-like character of an area extending some 70 miles west of Kingston as edaphic areas of desert in a savanna region. The rainfall, 32 inches a year, is capable of supporting a savanna where the soil is deep, the desert being sharply confined to limestone areas with very thin soils and an extremely rough surface. The use of the porous cup atmometer shows an evaporation similar to that of the humid coastal regions in the subtropical United States and much less than that of the inland desert region. The vegetation, however, closely resembles that of the continental desert, being characterized by various species of *Acacia*, *Cassia*, *Cereus*, and *Opuntia*. Bordering the desert there is often a zone of thorn forest, made up almost exclusively of *Prosopis juliflora*. Similar deserts result from similar factors on the coasts of Cuba, San Domingo, and many of the smaller West Indian islands.—GEO. D. FULLER.

²³ Review in BOT. GAZETTE 48:63. 1909.

²⁴ STRASBURGER, E., Das weitere Schicksal meiner isolierten weiblichen *Mercurialis annua*-Pflanzen. Zeitschrift für Botanik 1:507-524. pl. 14. 1909.

²⁵ SHREVE, FORREST, The coastal deserts of Jamaica. Plant World 13:129-135. 1910.